



New York State College of Agriculture At Cornell University Ithaca, N. V.

Library

Binder Gaylord Bros.Inc. Makers Syracuse, N. Y. MI. Ma Zi. 1908

College of Agriculture,

House Economics Library.

No. Date.

## Λ\_\_\_\_

# Revolution in the Kitchen

### ADDRESS

MR. HUGH S. OREM BALTIMORE, MARYLAND

Delivered before the Associated Clubs of Domestic Science, Sept. 21,1910, Madison Square Garden, New York City

### Second Edition

Published by Authority of the Bureau of Publicity of The National Canners' Association



The original of this book is in the Cornell University Library.

There are no known copyright restrictions in the United States on the use of the text.

## —— A ——

## Revolution in the Kitchen

### ADDRESS

MR. HUGH S. OREM
BALTIMORE, MARYLAND

Delivered before the Associated Clubs of Domestic Science, Sept. 21,1910, Madison Square Garden, New York City



Published by Authority of the Bureau of Publicity of The National Canners' Association

### INTRODUCTORY

THE Bureau of Publicity of the National Canners' Association having received numerous requests for copies of a recent address delivered by Mr. Hugh S. Orem, decided to comply therewith, and to publish it in this convenient form. Many canners expressed a desire to keep a copy for future reference, as well as to use the whole, or parts of it, for reproduction in the columns of their local newspapers.

This address is the best and most forceful argument from the Canners' standpoint ever issued by anyone representing the industry. The National Canners' Association respectfully urges that it be given the widest possible publicity.

The Bureau is anxious to keep a record of its publication, and will take pleasure in crediting the effort of any Canner having it reproduced in his local newspaper. Please, therefore, mail the newspaper containing the whole, or any part of this address, to the General Office of the Association, at Bel Air, Md.

BUREAU OF PUBLICITY NATIONAL CANNERS' ASSOCIATION

### **EXPLANATORY**

The following address, delivered by Mr. Hugh S. Orem at Madison Square Garden, September 21, 1910, before the Associated Clubs of Domestic Science of the United States, covers most intelligently the science of the canning industry and presents to the reading public much new information.

Its wording is in keeping with the occasion on which it was delivered. The Associated Clubs of Domestic Science is made up of clubs from all over the country, embracing in its membership, housewives, club women, magazine writers and experts on cooking and sanitation. This convention held a week of daily meetings at Madison Square Garden in the month of September, 1910.

It is well known that the members of these Domestic Science Clubs represent the culture and brains of the country. Their efforts have been lately directed toward helping the solution of domestic problems in a scientific, yet thoroughly practical manner.

Mr. Orem is the active head of a large canning establishment in Baltimore. Because of his fund of knowledge and long experience, the National Canners' Association requested him to represent it on this occasion.

After gracefully acknowledging his introduction, and expressing his pleasure that the opportunity was offered to address such an audience, he continued as follows:

### A Revolution in the Kitchen.

It is proposed to discuss, in a plain, blunt way, several truths with which we are all more or less acquainted, truths that have been listened to on other occasions, and delivered in a far more attractive and convincing manner than they can now be presented, but with the hope that, though they are discussed from a different viewpoint, information of some value may be given in return for an indulgent attention.

I come from a state noted for its fried chicken, hospitality and corn pone. From a city where the old negro mammy and her red bandana, though now almost extinct, has left behind her a legacy of recipes of priceless value. And although the cooking of the famous canvas back duck and the diamond back terrapin now furnish occupation for other hands, let me say, in this public place, to the honor of the Maryland housewife, that no greater compliment can be paid the stranger within her gates than when these heavenly morsels are served at her table, they are prepared and cooked by her own hands, she deeming it a sacrilege to entrust them to a chef or other hired servant.

The question of food, how obtained, by whom and under what conditions prepared, though vexatious and perplexing, is nevertheless an all absorbing topic in the household. The physical and mental training of children, and the lessons to be taught in good manners and morality take largely of the time of the housewife, besides many other duties constantly under her care, and which as constantly keep her mind employed. Yet she is ever intent upon exercising due care in the selection and preparation of the food coming to her table. All questions of a domestic nature come under her observation and at her hands receive the best solution.

Your speaker makes no pretensions to a knowledge of culinary art. He may be bold enough to say that he knows what good food and good cooking is, and that it costs far more to keep the cook than it does to keep the cooking. I pray you, therefore, do not look upon me as a critic, or as a judge, in any proposition that might be laid down as a pre-requisite to good cooking or to good housekeeping. I am mindful of the thousand and one difficulties and obstacles that are daily surmounted and overcome in the household. Hence my desire is to be charitable, not malevolent.

#### AIDS TO HOUSEKEEPING.

The very many excellent articles which are written for our magazines, designed to make housekeeping easy, as well as the hundreds of printed menus, to lessen the burdens of the housewife, ought to, in a large degree, accomplish the purpose for which they are written, and I believe they do. But no matter how religiously the directions are followed, frequently something goes awry which causes the wringing of hands and very often a gush of tears. The much abused joke of the newly made bride and her newly made biscuits, is yet a theme to conjure with. Why is it, when instructions are given and implicitly followed, how to make good bread, good soup, how to prepare vegetables and salads, or the many ways in which fruit may be served, you fail to reach the height of the writer's description, and discover your own anticipations are thwarted? Have you ever considered the fact that there may be something amiss with the fruit or vegetable, rather than that either you or the writer, or both, may be wrong?

#### NATURE AND HER LAWS.

If we would take the time to investigate we would learn not to expect to receive our supplies of food with a strict and rigid uniformity in size, color, flavor, or general appearance compared with other years. We should not learn to expect this season's supplies to be so perfect that they could be measured with any instrument of precision to determine their consistency or regularity with that grown in previous seasons. It is only natural to expect this variation, for in the whole realm of nature, with her whimsical and capricious temper, there cannot be found a single duplicate or replica. The intensity of her storms, the beauty of her sunsets, the delicate formation of every leaf and flower and blade of grass, the tasseled corn, her fields of golden grain, orchards redolent of glowing fruit, vary and differ in grandeur, form and substance Who can fathom her supreme and inexorable laws? Do we not know that it is beyond our power to discern why from one orchard there is an abundance of luscious, fullgrown fruit, and from another it is stinted and drawfed? That today's supplies from the fields are rated perfect, tomorrow good, yesterday but fair? Who can, from the bosom of this fair goddess wrest the secrets therein locked over which she keeps such Argus-eyed guard?

#### CHANGEABLE CONDITIONS.

Though the verdict of the soil is final and from it there is no appeal, though the wind and the sun and the rain make a triumvirate that cannot be appeased, experience and ingenuity have taught us many valuable lessons.

It has been discovered that peas grown in a dry climate, near an alkali stream, will absorb too much lime, that they are not as tender, nor do they have as fine a flavor, as those which are grown in a moist climate where fresh or softer water abounds.

Fruit grown in the mountains, though more susceptible to frost damage than that grown upon low lands, is sweeter and of larger size, and far more juicy.

Dr. Oliver Wendell Holmes, was it not, who said, "God could have made a better berry than the strawberry, but He didn't." Have you not found, time and again, this fruit to be just as inviting to the eye as it

ever had been, yet lacking in flavor, sour almost to bitterness, when compared with that which you have formerly bought and partaken?

These conditions are natural, they cannot be overcome. In a great measure they more frequently account for unsavory dishes, rather than a lack of care or of interest on the part of the wife or the cook.

#### CONTAMINATION OF STORE SUPPLIES.

Again, the time between the picking of the fruit or vegetable and its arrival in your kitchen is a most important factor. You are compelled to buy your supplies in the markets or the store, or mayhap from a hawker or peddler, and the further away you are from its source, the older the supply. It is on sale, however, out in the open. It is exposed to the dirt and the dust of the street. It comes in contact with everything you wish it would not. It has been handled and rehandled quite enough, we all agree. And just here I cannot refrain from saying that if amendments were enacted to the food laws of the several states requiring that all articles of food offered for sale should be kept under cover or screened and thereby reduce contamination to a minimum, it would be a consummation devoutly to be wished. Fresh meats, fresh fruits and fresh vegetables are indispensable to good cooking. It is as impossible to prepare a tempting meal from old. stale fruits and vegetables as it is to make a hair line with a blunt instrument.

If it were not a fact that a more or less intimate acquaintance with or an observation of the crops of fruits and vegetables during a period of 25 years qualified one to speak with some degree of assurance as to their continually changing conditions—that at a time when we are most anxious to accomplish the best, they are sure to be at their worst—it will not be held presumptuous to have made allusion to this part of a subject, which every woman ought to know. And thus endeth your speaker's knowledge of domestic cooking.

#### THE BACTERIOLOGIST'S LESSONS.

To the bacteriologist we are indebted for all the knowledge we possess of sanitary science. By this discovery we have learned that micro-organisms, or bacteria, are a low form of plant life having all the characteristics of living matter. We have also learned that some of these organisms are harmless, that others are But the housewife should view with alarm beneficial. the whole school as being poisonous and deadly, because she has no means of distinguishing the good from the These organisms feed and multiply by the million upon the same kind of food to which we are all accustomed. Where filth abounds they breed the faster. and by their contamination of milk, game, fruits, vegetables and other edibles, cause almost every disease known to medical science. Years before the bacteriologist acquainted us with his investigations and findings there were households kept in a state of order and cleanliness excelling even those of today which are said to comply in a great measure with all the light which has been diffused upon this important subject. from these comparatively clean and orderly homes more diseases were spread in a few hours than the ablest physicians of the times could eradicate in a year.

#### UNSANITARY ANCESTORS.

Our ancestors should not be condemned for what we now know to have been most unsanitary habits. They did not know that it was from their kitchens that disease was spread, and it is very doubtful if one could have convinced them that it was a grevious error and not the exhibition of motherly love and kindness, to have allowed the boy or girl to taste of the dainties brought from the sick-room of which the patient had partaken the smallest portion. In this day, for such a violation of the code of health, we should expect to be beaten with many stripes.

Profiting by the light of scientific research and bacteriological investigation. there is a reform being wrought in the kitchens throughout our country. There is occasion for sincere congratulation that in households where the germ theory is but only partially understood, the kitchen is coming to be the cleanest and most orderly room in the house. The information imparted by scientific men and women of the danger to life from the ever present bacteria is robbing the kitchen of the terrors with which it has been so long inhabited, and by degrees it is working itself into a respectable, clean, sweet-smelling room.

#### WHAT SANITARY SCIENCE IS NOT.

There is a prolonged warfare being waged against the kitchen in which the family wash is regularly done. The people are being advised that the kitchen is not the place to comb the hair or to perform the morning and evening ablutions. The mother is being taught that it is not the place to change the dress and to exercise the care necessary to the comfort and health of infants, or to do any of the other things in this room which should be performed out of doors, or at least in some other room of the house.

Probably in the household where but slack attention is given to sanitation, the food consumed therein, though of the coarsest, plainest kind, is as sweet to the palates of those who partake as the ambrosia the doves carried to Zeus on Mount Olympus. But it is from the carelessness in such homes that the cleaner ones are infected and disease is transmitted. Is it not, then, within the range of possibility that ere long the authorities of city and state will take up and finish the work you have so valiantly begun?

#### SIGNS OF GOOD HOUSEKEEPING.

The housewife is fast learning how to prevent the growth of these organisms, and in consequence she regards the fly and other insects as her common enemies, knowing they carry upon their feet and deposit in her house every disease microbe and germ gathered from putrid and foul matter of every description.

There are degrees in housekeeping as there are degrees in other professions, though the diplomas are not always awarded to those most worthy. We have no quarrel with the good housekeeper, because she manages her household affairs for the pleasure she receives from a work well performed. Her kitchen demonstrates at a glance the application of that which she has learned will produce the best, cleanest, safest, most orderly and economical results. A thermometer will be found upon her cooking range, and filters upon the faucets. The cooking utensils will be thoroughly sterilized and the dish cloths germ proof. Every window and door will be securely screened against the pestiferous fly. Grease and grime will not be found upon the walls or ceilings. Carpets will be an abomination, dust a profanation. She will be the genius of the place, and around her the household will revolve. Labor saving devices will be employed, and servants will be required, but never under any pretense whatever will she leave this place of high repute to a heedless, unkempt, unwashed cook that she might escape for a time the responsibilities that rest upon It would be rash to characterize this statement as a model of excellence that cannot be reached. It is only too truthful and real. Any woman ought to be ashamed if she required less, provided, of course, she has any pride in her home.

#### PROGRESS OF SANITARY SCIENCE.

Is sanitary science progressing? Don't you know that in the Isthmus of Panama, where that stupendous bit of civil engineering is now being pushed to a rapid conclusion, the wonder and admiration of the world, that the zone of operation has been transformed from an Augean stable to a condition of unexampled purity

and cleanliness? That fever is abolished? That the food now served to officers and clerks, as well as that prepared in the homes of the mechanics and laboring men, is as wholesome and as free from taint as that which is served in the best hotels in this city? That this betterment is due entirely to the United States government officials, who pride themselves upon a knowledge of sanitation.

#### SALUTARY LESSONS TAUGHT.

And thus we are progressing. Many a horrible example of the death carrying fly has been revealed to eves which knew not before their danger. Newspaper columns teem with warning against the filth and refuse allowed to gather at the kitchen door. City, state and national commissioners point out the peril lurking in drinking water, unsound fruit and general food kept too long in storage. The settlement worker with benign influence raises from the depths of despair the tired, despondent mother and teaches her the advantage and, mayhap, the luxury of non-contamination of food with foul hands and grimy clothing. These clubs of domestic science, sending their literature into every home, acquainting those of every degree with the baneful effects arising from careless homes, have started a revolution in the kitchen, which, like an advancing wave, gathers force and momentum from that by which it is driven. Let us hope that every housewife will become an insurgent and refuse to submit to the customs and habits of the past, until sanitary science is as familiar in every home as is the sunshine which follows the storm.

#### ADVANTAGES OF THE CANNING KITCHEN.

If we regard the food supply a great problem, surely the preservation of food is greater. In this particular business your speaker has long been engaged. Innate modesty prohibits him from discussing this question as an expert, though practical experience warrants him in speaking with expert knowledge. Be kind enough, then, to remember it is from a laudable desire to acquaint you with all the information of which he is possessed pertaining to this subject, and not from any worldly-minded idea or clap-trap motive to advance the fortunes of a great and important industry, which needs no commendation at his hands. It is but another phase of domestic science or domestic economy we are considering, and we'll discuss it to a conclusion without fear and without favor. The scientific principle by which food is cooked in the canning kitchen, and the modern sanitary appliances which are found therein, almost, if not entirely, overcome the deficiencies that exist in the domestic kitchen. The careful housewife is fast learning the value of such advantages, and in consequence thereof, adapts herself to these improved conditions.

#### COOKING AN ART; PRESERVATION A SCIENCE.

Cooking is an art. From the aboriginal age to the present, the same means have been employed to transform various products of the animal and vegetable kingdoms into nourishing food for mankind's use and benefit. The basic principle has but little altered or but little changed. Primitive man, by the rubbing of sticks, brought forth a fire into which he thrust the choicest portions of the chase, and ate to gluttony. Progress an invention displaced these barbarous methods until art, with her allurements, began to flatter the palate with sauces and condiments and by her deviations changed many a viand hitherto judged commonplace into appetizing, savory, creature comforts.

Preservation of food is a science. To have discovered a means by which food is prepared in one climate or in one place, that it may be consumed when desired in a different climate or in a different place, or to have brought into practical use a means by which we are permitted to partake throughout the year of the products gathered in their own peculiar season, makes such an invention rank very near the top with those which

have startled the world, increased the pleasure and added to the convenience of the human race.

#### EARLIEST EFFORTS IN PRESERVATION.

It may be of interest to know that in 1795 the government of France offered a prize of 12,000 francs for the most practical method of preserving food. This offer stipulated that the method, with all its secrets, if any, must be fully and plainly written out and become the property of the government if accepted. It has not been learned how many papers or plans were submitted, nor is there any reference to the names of any other but one contestant for the prize. But we know with what jealous care France guards among its thousands of records "A monograph upon the art of preserving animal and vegetable substances," signed by Nicholas Appert and bearing the date of 1809. This paper is on public view in the office of the minister of finance, and close beside it the acknowledgment of Appert that he had received the award so generously offered by the government under whose administration his experiments were made. From that time to the present Appert has been regarded as the father of a science which has proved to be a boon to all mankind. To perpetuate his memory France has erected a monument of enduring bronze.

#### INVESTIGATIONS OF OTHER CHEMISTS.

The discovery of Appert, as he described it, was that food could be kept for an indefinite period if placed in vessels from which the air is excluded. His process was to place the food in closely corked or stoppered bottles and expose it to the temperature of boiling water. But for the experiments made by other chemists, which proved the theory of Appert to be only partly correct, the art of preserving was indeed a lost art until about 1825, when a patent was granted by the United State government to preserve food in hermetically sealed cans. Again the art was lost, or its history at least,

until 1845, in which year the records show that oysters and one or two varieties of vegetables were preserved in hermetically sealed cans and shipped to England.

#### DISCOVERIES OF PASTEUR AND LISTER.

Appert's theory that certain elements or gases in the air cause decay and fermentation and that by the exclusion of the air food substances would remain indefinitely pure and sweet, was dispelled soon thereafter by other chemists. They proved if air which had been previously heated was allowed to come in contact with the food no change resulted. This, then, was an evidence that something other than the gaseous elements of the air provoked fermentation, and in consequence it set aside Appert's theory, which was founded solely upon that principle. These experiments to ascertain and locate the cause of putrefaction and fermentation enlisted the ablest thinkers of the century. Investigation never ceased, experiment knew no end. Then with amazement and astonishment we beheld the demonstrations of Tyndall and Pasteur and Sir Joseph Lister.

#### THE SCIENCE ESTABLISHED.

The germ theory was their discovery, which established that the agencies or causes which produce putrefactive changes or fermentation in our food are minute particles or organisms known as bacteria. That they are ever present in almost every substance and that by the application of intense heat they are made sterile and their activity entirely destroyed. Not alone have we been taught by the revelations of these eminent men how to preserve food, but modern surgery, and in no small degree the modern treatment of all diseases, have been completely changed from previous methods by the application of their wonderful discoveries.

This historical resume of a beautiful study will suffice for present purposes. The economies following closely in its wake are plainly seen and apply directly to the subject under discussion. The housekeeper's domain has been invaded by the products of the cannery. She recognizes they are equal, if not superior, to her best efforts in preparing the daily food. They have taught her to be thrifty and frugal, how to manage without loss or waste, and have largely diminished her anxiety concerning the health of the household.

#### THE CANNER'S OPPORTUNITY.

It has already been said that fresh meats and fresh vegetables are indispensable to good cooking and conducive to good health. There has also been shown the difficulty the housewife encounters in her efforts to procure fruits and vegetables absolutely fresh. What is your recollection of the vegetables served at the table of the farmer with whom you boarded this summer? Who were so fortunate as to be living in the suburbs, cultivating a kitchen garden? Are you not ready to testify to the tenderness and high flavor, and how delicious a meal can be prepared from the vegetables which grew within sight of the dining room window as compared with those you must buy in the city stores? Could our households depend upon such as these, and could they lay by a store for future use, very like Othello, the canner's occupation would be gone. you are unable to do, and therein lies the canner's opportunity. He locates his plant in the midst of the best producing sections. He grows and harvests his own crops, or he contracts with other growers and farmers for the entire supply of fruits and vegetables to be grown upon the acreage thus contracted. So that, before the dawn, while the city sleeps, his kitchen is filled with the yield of the soil wet with the morning dew. Peaches, peas, berries and beets, pears, corn and tomatoes, fresh to crispness, and smelling of Mother Earth, all and each are supplied in quantities sufficient for the day only, and the next day is but a repetition.

When he buys in the public market and secures his requirements for the day, that which is left finds its way to the grocer and the city stalls. The first choice is his, there is no mistake about that. The quantity he requires gives him this first opportunity for selection.

#### "CANNED GOODS" A MISNOMER.

As frequent allusion will be made to canned food, I desire now to record a strong objection to the common use of the term "canned goods" when canned food is meant. It is an inappropriate term, quite as much so as to refer to a woman as a "female." "Canned goods" may mean paint, oil or sand or soap. Our conception of food should be higher than merchandise. Canned food is a better term; it elevates the thought, even though it may not affect the palate.

#### INSIDE A HUGE KITCHEN.

Suppose, now, we cook this food which has accumu-To do so we must first enter the kitchen. You will find you are quite welcome. The canner whose plant is not open to visitors at all times died a long time ago, or else he has gone into some other kind of business. There is a standing invitation these days to visit and inspect as often as desired. As in the domestic kitchen, labor saving machines are employed in preparing the food for the kettle or the oven, so in a canner's kitchen will be found the latest improved machinery to expedite the work and as far as possible to handle the food automatically, reducing to a minimum the touch of the hands of men or women. It will no doubt be of interest to know that this machinery is so well perfected that there are varities of food which, from the time of its gathering to the hour it is served upon our tables, has never been touched by human hands. As we note the regularity of the system in this great kitchen, we are attracted by the sputter and hiss

of escaping steam, but it is a pleasant sound, for steam is the handmaiden of sanitation, and the destroying demon of microbes of every kind.

#### WHAT STERILIZATION IS.

In the home kitchen the greatest heat that can be attained from the hottest fire is 212 degrees. This is the degree of boiling. While this heat is sufficient to kill bacteria, it is not intense enough to kill or to completely sterilize the germ or spore. The objective point of the domestic cook is to allow the food to boil and simmer until it is declared done. It does not follow that this heat is even well sustained during the cooking process, and often as not the food is only partly cooked, notwithstanding the fact it may be declared The object of the cook in the canning kitchen is quite different. He knows nothing except time and temperature. He cooks to keep. "To keep" means an entire and complete sterilization. When this point is reached his food is also done. To accomplish this condition live steam is employed. Under pressure, heat is forced to 235 or 250 degrees, according to the nature of the food, and without wavering a degree, with eyes upòn steam gauge, a Fahrenheit thermometer and the clock, for the full space of thirty to ninety minutes the cooking goes on.

#### STERILIZATION THE SHEET ANCHOR.

Complete sterilization is the active principle for the preservation of food. By complete sterilization we mean the utter destruction of all bacteria, including the spore, or germ as well. This perfection cannot be obtained in our domestic kitchens, though it is a simple performance going on regularly every hour of the day in the kitchens of the great canning industry throughout the United States. Complete sterilization is the sheet anchor of the men engaged in this enterprise. It is their safest refuge, their strongest hope. Fortified

by the investigations of illustrious savants, and confirmed to the last degree by their own practical experiments, the safety of their products is so well assured that climate and season are annihilated, and the confines of space broken down. In the lonely herder's hut in Australia's bush, or upon the desert sands washed by the swift-flowing Nile, or amid the great white silence of the frozen north, this valuable science is disseminated through the ubiquitous tin can filled with wholesome, nutritious food, imparting health and strength to every partaker thereof.

#### UNSTERILIZED FOOD DELETERIOUS.

Remember that this food which has been placed in a can and completely sealed before cooking, requires such a fierce, continuous heat before it is fully sterilized. must be apparent why the home-cooked food in an open vessel, subjected to a much lower temperature, may, with constant watching, be sufficient to kill the bacteria, though it is utterly insufficient to kill the germ or egg. Hence, the point of the comparison is obvious: that while there is no difference in the food to be cooked at home and that to be cooked in the canning kitchen so far as its contact with germs and bacteria are concerned, when it is eaten we are positively assured that all the organisms are killed in the one service, and that in the other the bacteria may be dormant or dead, but the germ is generally alive and kicking. If unsterilized germs are deleterious to health, it requires no argument to demonstrate the health giving properties of that food which is completely free of them.

#### DOMESTIC COOKING NOT RELIABLE.

Home cooking will continue as long as the world stands. That the existing deficiencies will be overcome, no one doubts. There are people who live to eat, and others who eat to live. In both cases there are those who know nothing whatever of the value of thoroughly cooked food, and others who care less of the danger lurking in food only partly cooked. This leads me to suggest in the most respectful manner to those who march under the banner of domestic science, that you advocate scientific cooking shall be taught in our public schools, that the general health shall be conserved thereby, and thus lessen the annual percentage of deaths which can be traced immediately to underdone, unsterilized food which is daily served and consumed in a hundred thousand homes throughout our land.

No disparagement is meant to the excellent meals partaken of in our own homes, or in the homes of our friends. When we are dining out, we do not have the privilege of selecting the food, but we do select the friend, and that adds much to our peace of mind and comfort. I only draw the line at wedding or reception food, the chief offender at which is a conglomerate mass miscalled chicken salad. It is foolish to think that the food cooked at home cannot give the pleasure of that furnished from the canning kitchen, and it is as equally foolish to believe that this later food is not the peer of any that is served from the best regulated home kitchen in existence.

#### CANNED FOOD SAVES LOSS AND WASTE.

While we are waiting to learn the cause of the high cost of living, the housekeeper would do well if she had her loss and gain account audited. Waste and loss are items in manufacturing demanding the closest scrutiny at all times. It is equally incumbent upon the manager of the household that she reduce loss and waste to a minimum. The spining wheel gave place to Arkwright, and the fabrics now coming from the mills are not only far superior to those woven in the old days, but they are to be had at a much less expenditure of time and money. And so with many other inventions which enterprise has made commonplace. Discovery precedes, enterprise follows invention.

#### LIVING EXPENSES ARE REDUCED.

In the preservation of food, the discovery being established, there quickly followed inventions to hull peas, to take out the strings from beans, to extract the cores from pineapple, to macerate the pumpkin or squash, to remove the husk and the kernels of corn from the ear, and many other devices, designed to lessen the cost of production. Then came enterprise, backed by abundant capital, gathering the yield from orchard and field, banishing all seasons by delivering upon your pantry shelves throughout the year a quantity of peas for a less price than you are compelled to pay for the pods you throw away. A portion of corn at a less figure than you pay for the husks you must discard. A share of spinach at a cost for the leaves lower than you are charged for the roots or stalk you cannot eat. And thus this discovery-invention-enterprise enters the open doors of the rich and the poor alike, as an aid to the home by saving time, labor, and reducing the cost of living expenses. In a great measure it sovles the problem of the high cost of living. Its various sized packages have been designed to meet the requirements of various sized families. In this respect the loss and waste arising from unconsumed food which, in consequence, spoils and is unfit for use, is noticeably reduced. These items of thrift and frugality fan the flame of the revolution in the kitchen now going on.

#### SCIENCE VERSUS PREJUDICE.

"But I have a prejudice against food cooked in a can," some one says. Well, can you call to mind anything upon which all people have agreed? Don't you remember the prejudice against Guttenburg, the inventor of the art of printing? He was charged as being in league with the devil. It is not so many miles east of this hall where they used to burn women at the stake—they called them witches—an absurd prejudice. Not very long ago, in the South among the negroes, the mention of the word

"hospital" struck them dumb with terror—an imaginative prejudice. Prejudice exists among those who refuse to be convinced—with the ignorant and with the uninformed. What, then, is this prejudice against canned food? Some people who evidently know not that with complete sterilization all other efforts to preserve food are worthless, determined that a chemical or some kind of preservative is used, otherwise it could not be kept as good and sweet for so long a time. Should such a statement be credited, coming from those who know not whereof they speak, we must at once discredit the investigations and research of seventy-five years. We must denounce the demonstrations of Koch and Tyndall, Pasteur and Lister, as charlatanic and fraudulent. We must look down with contempt upon the scholarly Mitchell and Osler. We must count as naught the knowledge and advice of our own family physicians. We must demand the instant decapitation of that distinguished departmental chief at Washington whose warnings and the waving of the red flag has accomplished so much for the public good. From such calamities, good Lord, deliver us!

Why do we not waver in our faith with the astronomer, who fixes the duration of time and seasons, who fortells when comets shall perform their stupendous revolutions, and when the moon shall hide her face from the gaze of men? Why do we not distrust the navigator because he abstracts time from the sun, and measures distance by meridians? It is because the demonstrations of these distinguished men have been tried and proven by the final analyses of others no less renowned. We thirst for such knowledge because we are intelligent beings, we are bound to accept these evidences of thought and learning because they appeal to our sense and reason. If we attribute the achievements of science to chicanery or sophism, or connect them with some occult power or Mephistophelian mystery, the revelations of the laboratory are utterly destroyed and our faith in mankind lost forever! Food preservation by heat is the application of systematic, scientific knowledge. No shallow prejudice can disprove, nor doubt displace, its established worth.

#### A SUGGESTION TO HOUSEKEEPERS.

Now the housekeeper knows that cooked food will begin to spoil and decay in a very few hours. Experience tells her the food cooked in a hermetically sealed can is not susceptible to the agencies which spoil that which is exposed. She realizes that to remove only a portion of this food, allowing the balance to remain in the same vessel for future meals, is an absurdity. She cannot expect it to be pure and sweet as the part already consumed. Germs and bacteria have no more regard for this food when exposed than that which she has cooked and exposed. Both will spoil speedily.

I am naturally diffident in offering advice to an audience such as this. I remember it was Portia who savs in "The Merchant of Venice," "I can easier teach twenty what were good to do, than to be one of the twenty to follow mine own teaching." It is the first clause of the saying from which I shrink. Hence, with meekness and submision: If I were a housekeeper I would have a supply of canned food upon the pantry shelves at all times. Just before luncheon or dinner, if fancy led to both a vegetable and a fruit, I would remove the food from the can, pouring it into a clean, unbroken, uncracked dish, covering it with a piece of cheese cloth. to keep off flies or other insects. Let it remain a few minutes to receive the benefit of pure air. Pure air is good for both food and mortals. Fifteen minutes before the lunch or dinner, if it be a vegetable, transfer it to a stewpan, and allow it to get hot thoroughly through. Don't cook—it is already cooked. If a fruit, proceed in the same way (without heating), except if the weather be warm put in the refrigerator a few minutes, that it may be chilled before serving.

#### THE PHYSICIAN'S TESTIMONY.

This, no doubt, sounds like a cook book recipe, but it has not been given with any such intent; but rather, that a firm, positive statement be made, and that is this: Should anyone, after eating food cooked in a can, served as just described, imagine illness therefrom, my suggestion is you had better apply at once to the court for a committee "inquirendo de lunatico." Its findings would be convincing, for most likely physicians would be appointed to sit on the case. They would find "hallucinations," then declare such food, on account of its complete sterilization, could never injure anyone. This view is strongly supported by an eminent physician of the Johns Hopkins Hospital, who said to me on an occasion when the subject of food values was being considered, that should our city be afflicted with an epidemic of cholera or some other dread disease, he would immediately advise that no other food than that cooked in cans be consumed during the scourge, because the safety from infection is absolute, and its value infinite on account of its complete sterilization.

#### NEITHER FELONS NOR CRIMINALS.

If we agree with that philosopher who complained he had used up more than half his years in telling people what not to do, we will also have to agree with some other philosopher who had used up all his years in telling what we ought to do. How strange it is, that with all this teaching we only learn one thing at a time. However, it is by the forcibly expressed views of some of our public men that the general people are set to thinking. I must say again, if I were a housekeeper I'd do my own thinking and make my own investigations. I would not accept every news article or magazine story as gospel truth, so far as they related to my own little kingdom, without bringing reason to bear upon the subject. I would get on familiar terms with my judgment.

It would tell me that all of our great enterprises are not presided over by felons or criminals. That these enterprises are not operated in open defiance of the That honor and good faith among business men is neither forgotten, nor altogether lost. Then I would prove these conclusions. I would call up my grocer and say: "Someone has printed a story that canned food, from the manner of its preparation, is poisonous, and ought not to be eaten. Now you must guarantee the food you sell me will not put the health of my family in jeopardy, or I stop dealing with you." I would also keep the food commissioner of my state busy, if I believed the cans of food purchased from the corner grocery contained all kinds of poison as alleged. would demand of him to know why, if it was poisonous, he let me, through my ignorance of it, poison my family by serving it. It's his busines to know, and he would have to explain. I wouldn't be ignorant of so important a subject, that's all there is about it.

#### AN APPEAL TO REASON.

Now, let us look the thing squarely in the face by laying down the proposition that canned food is not If you believe it is, you must also believe poisonous. it is made so from motive. That with malice prepense it is so prepared as to destroy the health and lives of those who eat it. It makes no difference what other motive you might assign, the deadly work of poison would go on, though it be administered in error. through ignorance or by design. Don't you see that such a thought is so preposterous it offends that Godgiven intelligence with which we are all endowed? Heat sterilization is too thoroughly and firmly fixed to admit a charge so utterly false and illogical. It falls to the ground because it is not founded on common sense or good morals, nor endowed with reason.

#### HONOR TO THE LONELY THINKERS.

As the legatees of a discovery which has robbed the hospital of its former terrors, by the saving of thousands of lives where formerly thousands were lost; that feeds and sustains the armies and navies of the world, while on the march or when sailing to the uttermost ends of the earth; that ministers to the comfort of prince and pauper and peasant and lord, let us not be arrogant or boastful because the application of this valuable science has been entrusted to our hands. Nor must we forget the lonely thinkers within the confines of the laboratory, separating themselves from the society of men that they might perfect a discovery and become benefactors to the human race. Let us think of them as buoyed aloft on the pinions of hope, or cast down with the burden of dispair, out of which came the final victory so patiently sought. For such as these we willingly twine the laurel wreath. And from such, who so churlish as to withhold a meed of praise.

Cornell University Library

A revolution in the kitchen;

| DATE DUE |   |   |    |     |  |
|----------|---|---|----|-----|--|
|          |   |   |    |     |  |
|          |   |   |    |     |  |
|          |   | - |    |     |  |
|          |   |   |    |     |  |
|          |   |   |    |     |  |
|          |   |   |    |     |  |
|          |   |   |    |     |  |
|          |   |   |    |     |  |
|          |   |   |    | _   |  |
|          |   |   |    |     |  |
|          |   |   | 4  |     |  |
|          | - | - |    |     |  |
|          |   | - | -  | - 1 |  |
|          | - |   | +- |     |  |
|          | - | - |    |     |  |
|          | + |   | -  | -   |  |
|          |   |   |    |     |  |

